CAPACITY TO BEAR LOSS AS A FACTOR IN THE DECISION OF CERTAIN TYPES OF TORT CASES

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In a previous issue of the University of Pennsylvania Law Review the writer discussed under the present title a number of tort cases involving municipal corporations.[1] The purpose was to point out what seemed to be a noticeable tendency in recent cases to depart from the rule that a municipal corporation is not liable for torts arising in connection with a municipal function. It was suggested that this tendency may be due in part to a desire to place the burden of loss through injury where it can be borne with the least hardship. It was noted that this is attained by placing it where it can be absorbed with a lesser probability of creating further problems of social adjustment. When the burden in such cases is put upon the defendant, that defendant can distribute the loss burden over a considerable group, *viz.*, the body of tax-payers. In this way the loss is ultimately born by the social organization for whose benefit the risk producing agency was brought into existence.

The industrialization and mechanization of social organization has brought into existence for the benefit of society great organizations whose activities involve dangers of injury which were not present in the simpler and more rural organization of earlier times. This is not to say that life is less secure now than when "Adam delved and Eve span", but security of life is menaced by risks traceable to the "conveniences" which have come to be regarded as necessities in modern life and which are provided through great business organizations. Is there traceable, in the negligence cases involving such organizations as defendants, any disposition to impose the loss on the defendant in such cases be-

[1] Feezer, *Capacity to Bear Loss as a Factor in the Decision of Certain Types of Tort Cases* (1929) 78 U. OF PA. L. REV. 805. Both parts of this paper were prepared under the direction of Dean Leon Green in connection with a research problem undertaken at his suggestion during the 1929 summer session of the Yale Law School.

cause that type of defendant, drawing its income from compensation received from vast numbers of customers, is thus able to distribute such losses over society in very slightly increased cost of the service to each of the thousands of customers receiving the benefit of this service? If such a development is taking place in the law of tort, what is the nature of the judicial process employed? Are the courts employing and broadening the concepts which have been used for dealing with negligence cases or are they evolving new concepts of legal liability?

Hazards Connected with Gas Companies

Experience has shown that the production and distribution of gas fuel involves certain hazards and that many injuries resulting from the operation of this business have produced a very considerable volume of litigation. The injuries which produce the great bulk of tort litigation against gas companies involve fact situations which place them in the following groups: *1.* Injuries due to leaking gas either by inhalation or explosion. *2.* Injuries to vegetation due to escaped gas in air or soil. *3.* Injuries due to excavations. *4.* Escaping gas, due to negligence, as a nuisance where no specific harm to person or property is shown.

A gas company has the difficult task of transmitting its product under some pressure through great lengths of pipe most of which is not easily accessible after installation, past innumerable joints and valves to thousands or hundreds of thousands of outlet fixtures. An escape anywhere in this system is likely to do damage. If escape is to be prevented the following conditions will apparently have to be satisfied: first, pipes and fixtures must be carefully made of suitable material [2]; second, they must be properly installed; third, they must be maintained under such inspection as will discover leaks or conditions likely to produce leaks as far as is reasonably possible; fourth, there must be prompt

[2] Where pipe was negligently laid, a gas company may be held liable without specific notice of subsequent leak or defect. Dow v. Winnepesaukee Gas & Electric Co., 69 N. H. 312, 41 Atl. 288 (1897), in which defendant company had acquired an existing plant, and the court said the defendant immediately became responsible to keep the plant in a reasonably safe condition. See authorities collected, 29 L. R. A. 337 (1896), 33 L. R. A. 366 (1897).

repair of leaks whether discovered by the defendants and its servants or reported to it by others.[3]

Inhalation and Explosion of Escaped Gas

If there is no conflicting evidence as to conditions of these sorts in a case where there has been an injury from escaping gas, the court has simply to deal with the question whether the gas company owed a duty to the plaintiff in reference to the particular hazard existent under the circumstances. If the circumstances are so strong one way or the other that the court believes that reasonable minds could not differ on the situation it may decide the case on this issue alone. On the other hand, conflicting evidence or a situation not so obviously favorable to the one side or the other either on the questions of the existence of the duty or of its violation, may require a submission of the questions to a jury.

In any event, it was recognized by the courts as soon as gas cases began to come before them that gas is a very dangerous substance. It was also recognized that gas is very useful, an almost indispensible utility in urban life.[4]

The development of the law of negligence having been contemporaneous with the growth of the gas business, it is not surprising that there has been an application of negligence formulas to the working out of standards of care and duty for gas companies. A typical example of this formula appears in a Pennsylvania case as follows:[5]

> "The definitions of negligence that have been attempted imply that a higher degree of care and viligance is required in dealing with a dangerous agency than in the ordinary affairs of life or business which involve little or no risk of

[3] A large number of cases involving and discussing this duty cited and digested, 26 A. L. R. 267 (1923). A gas company is held to the duty of making frequent, indeed very frequent, inspection but is apparently not obliged to maintain a constant inspection of its lines in the absence of any reason to suspect the existence of a leak. Consolidated Gas Co. v. Croker, 82 Md. 124, 33 Atl. 423 (1895); Cooper v. Tristate Gas Co., 3 Ohio App. 77 (1914); Morgan v. United Gas Improvement Co., 214 Pa. 109, 63 Atl. 417 (1906).

[4] References to this attitude are not uncommon, *viz.*, Triple State Natural Gas & Oil Co. v. Wellman, 114 Ky. 79, 70 S. W. 49 (1902).

[5] Koelsch v. The Philadelphia Co., 152 Pa. 355, 362, 25 Atl. 522, 524 (1893).

injury to persons or property. While no absolute standard of duty in dealing with such agencies can be prescribed, it is safe to say in general terms that reasonable precautions suggested by experience and the known dangers of the subject ought to be taken."

Similarly, it is said in an Oregon case,[6]

"It is plain that a greater degree of absolute care should be exercised in such circumstances than in conducting a millinery store or carpenter shop. In either case, however, the care must be proportionate to the risk incurred."

The problem of a gas company's duty is complicated by variations of practice in different communities as to whether the gas company or the property owner installs piping and fixtures. It appears to be the prevailing practice for the gas company to deliver the gas through a "service pipe" to a stopcock in the pipeline just before the gas enters the meter. After passing this stopcock the gas passes through the meter and enters the system of piping and fixtures installed by the owner of the premises. If, after gas service has been established, there is a leak *beyond* the meter, the gas company is not ordinarily responsible for injuries which may result.[7] Although the stopcock is on what may be called the gas company's side of the meter, it is evidently the prevailing practice for the company to install the meter.

Sometimes the service pipe belongs to the customer and is his installation in which case he becomes responsible for damage caused by leaks in it.[8]

A frequent source of trouble is the re-establishment of gas service in a building after it has been discontinued without re-

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[6] Sharkey v. Portland Gas Co., 74 Ore. 327, 330, 144 Pac. 1152, 1153 (1914).

[7] Okmulgee Gas Co. v. Kelley, 105 Okla. 189, 232 Pac. 428 (1924); Helm v. Mfrs. Light and Heat Co., 86 W. Va. 628, 104 S. E. 59 (1920). But where a gas company installs piping, fixtures, or appliances, it becomes responsible for them. The usual duties of inspection, prompt repair upon notice, etc., will then be imposed upon the gas company. McClure v. Hooperstown Gas & El. Co., 303 Ill. 89, 135 N. E. 43 (1922), 25 A. L. R. 250 (1923); Coffeyville Mining and Gas Co. v. Carter, 65 Kan. 565, 70 Pac. 635 (1902).

[8] See 25 A. L. R. 262-272 (1923), for collected cases, also Reid v. Westchester Lighting Co., 236 N. Y. 332, 140 N. E. 712 (1923); Okmulgee Gas Co. v. Kelly, 105 Okla. 189, 232 Pac. 428 (1924).

moval of the piping and fixtures. Sometimes the gas is turned off at the stopcock through which the gas passes before entering the meter. In this case the service pipe is stored with gas. Sometimes it is turned off at the curb, approximately where the gas leaves the main and enters the service pipe. Many cases seem to indicate that the latter is the method of real "foolproof" safety.[9] It has been mentioned that the service pipe is often the customer's installation, and if, in such a situation, the gas company turns off the gas at the meter end of the service pipe rather than at the curb line in front of the premises, it is generally held that the company adopts the service pipe as its own and (during the period of discontinued service) becomes responsible for the service pipe and for the gas stored in it.[10]

When the gas company turns on the gas in an installation there is always a possibility that there may be in the building an uncapped service pipe, a leaking fixture, an open stopcock, etc. This situation may arise either when gas is turned on for the first time in an installation or when service is re-established after the gas has been shut off for a time. Such a condition, of course, means a leak. The place of the leak, if an open stopcock, may have been forgotten or overlooked by the applicant for the service, or if a defective condition, may have been discoverable only after pressure was turned into the installation. Whose is the duty to make sure that all openings or leaks have been checked and made secure before gas service can be said to have been properly started?

Earlier decisions and *dicta* seem not to have imposed so strict a responsibility upon the gas companies as the more recent ones.[11]

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[9] Reid v. Westchester Lighting Co., *supra* note 8.

[10] Note (1908) 7 MINN. L. REV. 251.

[11] The earlier cases seem to have made the gas company responsible only in case it had some reason to suspect a leak or that some alteration had been made in the system of piping which might cause a leak. *Viz.*, Southern Indiana Gas Co. v. Tyner, 49 Ind. App. 475, 97 N. E. 580 (1912); Skogland v. St. Paul Gas Light Co., 89 Minn. 1, 93 N. W. 668 (1903); Lennon v. Union Gas and El. Co., 4 Ohio App. 153 (1915); Dodge v. Halifax Gas Co., 9 N. S. 325 (1893). On the other hand several recent cases have placed upon the gas company a very strict duty to stay on the job in premises where gas has been turned on until it is practically certain that there is no opportunity for it to escape. Sawyer v. So. Cal. Gas Co., 206 Cal. 377, 274 Pac. 544 (1929).

One of the formulas of the law which has been helpful to plaintiffs in establishing the responsibility of companies operating the complex industrial and mechanical enterprises of the modern day is the rule of *"res ipsa loquitur"*. It has been much applied in cases involving the hazards which are more characteristic of modern industry than of a simpler time. It has been so generously applied in aid of passengers injured on railroads that today nearly all such cases are settled without litigation unless the railroad company feels that it has a good chance of establishing a defense in the fault of the plaintiff such as contributory negligence.

The application of this rule to a gas company was discussed in *McClure v. Hooperstown Gas and Electric Co.*,[12] in which it was said that the plaintiff need not show how the ignition of the gas and the resulting explosion took place, and that evidence of the existence of a leak together with defendant's notice thereof was sufficient to take to the jury the question of the company's responsibility. However, the mere fact of injury from gas will not make a case on which the plaintiff may submit to a jury the question of the gas company's responsibility. This is, of course, quite proper because the escape of gas may have been due to the act of someone else in opening a gas cock.[13] However, proof of a break or leak in a gas pipe under the defendant's control will serve to make the doctrine applicable.[14]

It would seem that when the gas company touches piping or fixtures on anyone's premises, it undertakes a duty to follow up the matter and be assured that all connections are tight. Bell v. Brooklyn Union Gas Co., 193 App. Div. 669, 184 N. Y. Supp. 807 (1920). Even checking the fixtures is not enough, nor is watching the meter dials for indication of flow of gas. Both precautions must be taken. Atlanta Gas Light Co. v. Sams, 29 Ga. App. 446, 116 S. E. 21 (1923).

[12] *Supra* note 7.

[13] Marysville Gas Co. v. Brodheck, 114 Ohio St. 423, 151 N. E. 323 (1926); Laurent v. United Fuel Gas Co., 101 W. Va. 499, 133 S. E. 116 (1926).

[14] Woodburn v. Union Light Heat and Power Co., 164 Ky. 29, 174 S. W. 730 (1915); Sipple v. Laclede Gas Light Co., 125 Mo. App. 81, 102 S. W. 608 (1907); Sharkey v. Portland Gas Co., 74 Ore. 327, 114 Pac. 1152 (1914); Cracraft v. Wichita Gas Co., 126 Kan. 775, 271 Pac. 273 (1929), *aff'd*, 127 Kan. 741, 275 Pac. 164 (1929), where it was held proper to leave the case to the jury on the "circumstantial" evidence. In that case two gas lines ran through the same street. In some way gas found its way through the ground and entered a basement through a sewer. The defendant's line was shown to be leaky. There was no evidence of any leak in the other company's gas line. The jury concluded from the circumstances that the gas which caused the explosion came from defendant's line rather than the other one.

In the explosion cases one might well expect to find the opinions treating the problem of how the gas was ignited as a question of proximate cause and discussing whether or not the ignition was not an independent intervening cause, but the Illinois court dismissed that argument in the *Hooperstown* case by referring to it as a question for the jury. In short, the court having determined that there was a duty on the part of the defendant to protect persons in the plaintiff's position from the hazard of escaped gas, the fact that gas did escape constituted a sufficient causal factor to make the defendant liable for its explosion if the jury should find negligence, *viz.*, that some harm was foreseeable.[15]

The question whether the concurrent negligence of a third person operating in conjunction with the negligence of the gas company will defeat liability seems to have given the courts some trouble and to have produced standards of duty which could not but produce inharmonious results. In *Skogland v. St. Paul Gas Light Co.*,[16] the landlady of a rooming house called the defendant company to thaw the frost out of the gas pipes. For this purpose the company's workman temporarily turned off the gas. The plaintiff, a lodger, was taking a nap with the lights on and was not notified by the landlady that the gas was to be turned off. She was injured by the inhalation of gas which escaped from the fixture in her room when it was turned back on. The Minnesota Supreme Court in sustaining a directed verdict for the defendant said it would be unreasonable to require the company to go through the house to look at each jet and see that it was properly turned off when pressure was restored. The most analogous case

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A break in the service pipe was held sufficient basis for applying *res ipsa loquitur* in Manning v. St. Paul Gas Light Co., 129 Minn. 55, 151 N. W. 423 (1915); likewise, that gas was leaking from a pipe in the street in Di Sondro v. Providence Gas Co., 40 R. I. 551, 102 Atl. 617 (1918); also Brown v. Kansas Natural Gas Co., 299 Fed. 463 (C. C. A. 8th, 1924).

[15] The court stated of *res ipsa loquitur* as applied to the facts in the Hooperstown case, "it cannot be said that the result of escaping gas must necessarily be an explosion or fire. . . . A jury may find negligence from the breaking of a gas pipe and the consequent escape of gas but it is for them to decide whether they will so find or not. And if there are other circumstances in the case they must weigh them all."

[16] 89 Minn. 1, 93 N. W. 668 (1903).

which can be found is *Atlanta Gas Light Co. v. Sams* decided twenty years later.[17] The factual distinction is that the lodger in the *Sams* case occupied a part of the apartment in which the repair was being made, which, however, was not under the control of the tenant with whom the defendant's employee talked about the condition and occupancy of the premises. In short, no one knew whether Sams was in his room or not until later when his dead body was discovered. The tenant in the *Sams* case, although not in control of that part of the apartment in which he lodged, agreed to see to the fixture in Sams' room which was locked "when the gas man came in".

In the *Sams* case the plaintiff had a verdict from the jury. This was affirmed in an opinion which is largely lifted bodily from that in the *Skogland* case, but the cases can not be reconciled. The *Sams* case was a better one for the defendants than the *Skogland* case. Here is a situation which seems to the writer to indicate the working of other factors than the strict theology of negligence. In the *Skogland* case the plaintiff was soon awakened upon the smell of gas being detected as coming from her room. The injury, if any, was small and both court and jury were willing to let it rest where it fell. In the *Sams* case on the other hand, a bright and promising young man loses his life. He is the son of poor but deserving parents. The human disposition to shift the loss leads the court to a different criterion of duty.

Injuries to Vegetation

One of the frequent consequences of escaping gas is injury to vegetation and the liability of gas companies for this type of injury where the defendant is chargeable with negligence is asserted in a large number of opinions. In *Gould v. Winona Gas Co.*,[18] Jaggard, J., defines the duty of a gas company with reference to escaping gas as resting upon the standard of "due care commensurate with the danger". He expressly repudiates the suggestion of degrees of care. The greater portion of this opin-

[17] 29 Ga. App. 446, 116 S. E. 21 (1923).
[18] 100 Minn. 258, 269, 111 N. W. 254, 258 (1907).

ion is devoted to an attempt to justify the refusal to include gas in the doctrine of *Fletcher v. Rylands* which is recognized in Minnesota.[19] The opinion deals at length with the applicability of *"res ipsa loquitur"* to such cases.

The opinion in the *Gould* case is an interesting one in which to observe the working of the judicial process. On the one hand there is the inherent repugnance to the idea of liability without fault;[20] on the other hand are competing factors struggling for expression. There is the desirability of extending a high degree of protection to interests of personality and individual property as against the risk of danger from subtle insidious things like gas and electricity. Judge Jaggard recognizes the futility of attempting to define degrees of care or negligence, since they would be helpful only in the particular factual situation, and as precedents would tend to hamper the court in the correct determination of future cases. The solution selected is to say that this is a case for the application of *res ipsa loquitur*. The court says:[21]

> "Gas pipes are not a chartered nuisance. The step downwards from the rule in Rylands v. Fletcher is too great to be taken in this jurisdiction. The very fact that the instrumentality doing damage is peculiarly and inherently dangerous is a common and proper consideration for the application of the maxim. . . . One of the essentials to the application of the maxim is clearly present: The agency was admittedly in the exclusive management of the defendant. . . . The other essential is also here: The result was such as in the ordinary course of things does not happen if those who have the management used proper care."[22]

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[19] Cahill v. Eastman, 18 Minn. 324 (1872); Berger v. Gas Light Co., 60 Minn. 296, 62 N. W. 336 (1895); Wiltse v. Red Wing, 99 Minn. 255, 109 N. W. 114 (1906).

[20] Thayer, *Liability without Fault* (1916) 29 HARV. L. REV. 801; McDonald, *The Rule in Rylands v. Fletcher and its Limitation* (1923) 57 AM. L. REV. 549; (1923) 1 CAN. BAR. REV. 140; Bohlen, *The Rule in Rylands v. Fletcher* (1910) 59 U. OF PA. L. REV. 298, 373, 423.

[21] Gould v. Winona Gas Co., *supra* note 18, at 266, 111 N. W. at 257. 22 ILL. L. REV. 724.

[22] As to requirements for applicability of *res ipsa loquitur*, see Notes (1925) 23 MICH. L. REV. 785; (1927) 25 MICH. L. REV. 470; (1925) 9 MINN. L. REV. 577; Heckel and Harper, *Effect of the Doctrine of Res Ipsa Loquitur* (1928) 22 ILL. L. REV. 724.

Conclusion

It appears to the writer that in so far as the gas company cases indicate any inclination on the part of the courts to take account of the various intangible factors such as capacity to bear the loss of injury arising out of the operation of gas works, the device chiefly used to this end is the *res ipsa loquitur* rule.

There are several existing and recognized formulas which might be applied in determining a gas company's duty with reference to injuries. The individualist point of view of a gas company's responsibility in relation to its place in the social order can be effectuated by the rule of "due care under the circumstances", and it has been extensively used. The social interest in security of person and property against explosion might be so strongly developed as to make the gas company an insurer. This, however, in the absence of legislation has not been the rule. A somewhat intermediate position has resulted by the use of due care test plus *res ipsa loquitur* which will and in most cases does furnish a basis for taking care of hard cases. Whether we call the rule of *res ipsa loquitur* a presumption or merely an authority to the jury to draw inferences, the result, where it is applied, will work out that unless the gas company can show that the accident was due entirely to causes other than its negligence, the plaintiff will recover. In other words, once a case of this sort is given to the jury with instructions incorporating the *res ipsa loquitur* formula, the defendant will in practice have to convince the jury actually "beyond a reasonable doubt" and not merely by a preponderance of the evidence, that the entire fault lay in some other source than his (defendant's) conduct.[23]

The *Sams* case[24] already referred to illustrates another scheme of rationalization resorted to where *res ipsa loquitur* will not apply, namely, the extension of the "duty to inspect" idea as a measure of due care under the circumstances.

It is not easy to find any marked indications of a desire to shift the risk of loss from injuries due to the activities of gas

[23] Hughes v. Atlantic City R. R., 85 N. J. L. 212, 214, 89 Atl. 769, 770 (1914). See Heckel and Harper, *op. cit. supra* note 22.

[24] See *supra* note 17.

companies. The use of the *res ipsa loquitur* formula has been referred to but its use here is not significant of any marked process of evaluation in the methods of dealing with these cases, or of the manner in which courts are deciding them. Where the gas leaks from pipes and fixtures under the control of the defendant a situation calling for this formula of rationalization is likely enough to arise, but does not seem to have produced any peculiar standard of care for defendants in this kind of business or to have resulted in any unusual developments of that doctrine.

As already indicated the few points mentioned here have been selected after examination of the majority of tort cases against gas companies which the writer has been able to discover. There is plainly only one conclusion as to the influence which has been exerted by a consideration of the social utility of placing the risk where it can best be borne. There is no articulate recognition of this in the decisions. If this factor enters in this type of tort cases it is one of the hidden factors and is no more evident here than in the general average of negligence cases which might be selected without reference to the economic position of the defendant or the fact that his position enables him to distribute losses. If one seeks to show that the courts are tending to impose a greater responsibility on corporate defendants who have this risk-shifting advantage he will find scant support in the "gas" cases.

This is in some contrast to what appears to be taking place in the law of municipal liability for tort as was pointed out by the writer in the first part of this paper.[25] In that connection, however, we were facing a somewhat different situation. There we began with an arbitrary rule of "no liability", irrespective of fault. It appears that there is a tendency to break away from that point of view and to apply the more general standards of legal responsibility. Here we begin with an application of the orthodox negligence concept and we do not find that it is giving way to any noticeable degree to what might be called a socialized theory of responsibility.

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[25] Feezer, *op. cit. supra* note 1.

If there is any indication of an increasing duty upon gas companies it is to be found not so much in that recent cases are announcing any new types of duty or standards of care but in that most of the cases in which the duty of a gas company is discussed are very recent ones.

Hazards Connected with Waterworks

Waterworks whether public [26] or private may be the cause of numerous injuries to persons or property. The types of injuries most frequently producing litigation seem to be due to one of the following causes: (a) dangers arising out of the activities carried on in the construction or operation of plants, (b) leaking or bursting mains, (c) impurities in water, (d) failure of water supply.

It is obvious that lack of care in construction operations may result in injury in view of the fact that they take place so largely in the streets where numbers of persons may encounter them. As to the rules applied by the courts in fixing the standards of care and duty in such cases it may be said that in general they are dealt with under the ordinary negligence formulas although a few cases have treated the value of the franchise to use the public streets as a consideration for justifying the imposition of a rather special duty to keep in good repair any apparatus placed in the streets such as hydrants, stop valves, manholes, *etc.*

The duty to guard excavations is dealt with in *Smith v. Baton Rouge Water Co.*[27] In this case a mother left her small child on the porch of her home and went into the house. A very few moments later the child was found dead in the bottom of a hole in the street in front of the house which had been dug by the defendant for the purpose of repairing water mains. There were no barricades around the excavation. Judgment for the plaintiff in the trial court was reversed by the court of appeals on the ground that as the water company had been making excavations

[26] It may be noted at the outset that a municipality is liable on the same terms as a private owner. See 2 McQuillen, Municipal Corporations (1928) § 2852.

[27] 9 La. Ct. of App. 19, 119 So. 98 (1928).

like this from time to time during the seventeen years of its existence and leaving them unguarded without any drownings, such a consequence was unforeseeable and hence there was no negligence. The Supreme Court of the state properly overruled this judgment, saying: [28]

> "The defendant company, in our opinion, was guilty of a plain and palpable omission of duty. The excuse which it offers for its conduct is utterly unacceptable. . . . Because the company was fortunate in escaping accidents for a number of years is no justification for its continuing to do a thing which, according to common experience, is highly dangerous."

In the majority of cases in which recovery has been sought for the drowning of infant trespassers in ponds, reservoirs, and like works maintained by water companies, recovery has not been allowed. Even those courts which have recognized the "attractive nuisance" or "turntable" doctrine have been reluctant to apply it to anything so much resembling a natural thing as a pool of water. The statement in one of the annotations [29] that the attempt to extend the doctrine to dangers of the class of pools, reservoirs, and waterways has been unsuccessful, seems to be true.

It is interesting to inquire what has been the influence of *Fletcher v. Rylands* [30] in determining the liabilities of water companies. It might well have been expected to be applied to water escaping from mains but such has not been the case. Before the time of *Fletcher v. Rylands* it had been decided in England that water companies were not liable without negligence for the escape of water from their mains and that decision did not directly change

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[28] 166 La. 471, 478, 117 So. 559, 561 (1928).

[29] Cox v. Alabama Water Co., 216 Ala. 35, 112 So. 352 (1927). The annotation referred to, 19 L. R. A. (N. S.) 1143 (1900), collects a large number of cases. A great many more will be found collected in 36 A. L. R. 243 (1925); 53 A. L. R. 1355 (1928).

[30] Fletcher v. Rylands, 3 Hurl. & Colt 774, 34 L. J. Ex. 177 (1865) (Court of Exchequer); Fletcher v. Rylands, 4 Hurl. & Colt 263, 35 L. J. Ex. 154 (1866) (Exchequer Chamber); Rylands v. Fletcher, L. R. 3 H. L. 330 (1868), 19 L. T. 220 (1868) (House of Lords). Lord Blackburn's famous rule was stated as follows: "One who for his own purpose brings on his lands and collects and keeps there anything likely to do mischief if it escapes must keep it in at his peril, and, if he does not do so, is prima facie answerable for all the damage which is the natural consequence of its escape."

the basis of their responsibility.[31] The same situation prevails in the law of this country even in the states which follow the *Rylands* case.[32] However a somewhat different attitude has been adopted by a few courts having to deal with cases involving the destructive force of water under extraordinarily high pressure. In *Charing Cross Electric Supply Co. v. Hydraulic Power Co.*,[33] the defendant, pursuant to special license under statutory authority had laid under the street a high pressure main for the purpose of supplying water for power purposes such as the operation of lifts. This main burst injuring the plaintiff's underground electric cables. The Court applied the rule of *Fletcher v. Rylands*. In this country, Minnesota, which in a number of situations has recognized the *Fletcher v. Rylands* principle,[34] decided an interesting case in 1924.[35] The City of Duluth had a very large reservoir on a hill two hundred feet higher than plaintiff's property from which water was conducted past the plaintiff's premises in a twenty inch main. This main burst causing nearly $50,000 damages to this property. No negligence was alleged but the *Fletcher v. Rylands* principle was relied on. In overruling the demurrer Holt, J., says:[36]

> ". . . reason and the interest of justice seem to favor adherence to the rule rather than the reverse. Congestion of population in large cities is on the increase. This calls for water systems on a vast scale. . . . Water in immense quantities must be accumulated and held where none of it existed before. If a break occurs in the reservoir itself, or in the principal mains, the flood may utterly ruin an individual financially. In such a case, even though negligence be absent, *natural justice would seem to demand that the enterprise, or what really is the same thing, the whole com-*

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[31] Green v. Chelsea Waterworks Co., 70 L. T. 547 (1894); Cattle v. Stockton Waterworks Co., L. R. 10 Q. B. 453 (1875), 44 L. J. Q. B. (N. S.) 139 (1875), 33 L. T. 475 (1875).

[32] McCord Rubber Co. v. St. Joseph Water Co., 181 Mo. 678, 81 S. W. 189 (1904).

[33] [1914] 3 K. B. 772.

[34] Cahill v. Eastman, 18 Minn. 292 (1872); Wiltse v. Red Wing, 99 Minn. 255, 111 N. W. 1134 (1906).

[35] Bridgman Russell Co. v. Duluth, 158 Minn. 509, 197 N. W. 971 (1924).

[36] *Ibid.* at 511, 197 N. W. at 972.

> *munity benefited by the enterprise, should stand the loss rather than the individual.*[37] It is too heavy a burden upon one. The trend of modern legislation is to relieve the individual from the mischance of business or industry without regard to its being caused by negligence. Our safety appliance acts, workmen's compensation acts, are examples."

The disastrous nature of this break appears to have greatly impressed the court and induced the utterance of an opinion which goes farther than any other the writer has been able to discover in recognizing the factor of capacity to bear loss. Seldom indeed is it that one reads in a judicial opinion such language. Among the great number of cases against waterworks companies and municipalities which the writer has examined in an effort to find out just what part this factor has played in their decision, no other case has been found which really frankly admits in explicit language the place of this factor in passing judgment. But the court proceeds to rationalize its decision upon grounds more orthodox. Suppose this action had been brought in a jurisdiction not accepting the *Fletcher v. Rylands* rule. As this case was pleaded the result would probably have been a nonsuit. But suppose the complaint to have contained comprehensive allegations of negligence, would the court be able to concede the existence of a cause of action without doing violence to its formed categories of legal responsibility? The Minnesota opinion suggests that liability might be imposed on the theory of trespass but, having the *Fletcher v. Rylands* precedent, does not work out the trespass theory.

A few other cases of extensive damage due to large leaks seem to indicate some readiness to find evidence of negligence on which to send the case to the jury.[38] In a New York case [39] where old water pipes burst when the higher pressure from a new supply was turned on, the city argues that it was not negligent because of

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[37] Italics the author's.

[38] Egelhoff v. Ogden City, 267 Pac. 1011 (Utah 1928); Public Service Co. of Colorado v. Williams, 84 Colo. 342, 270 Pac. 659 (1928).

[39] Haas v. City of New York, 107 Misc. 427, 176 N. Y. Supp. 433 (1919), *aff'd.* 190 App. Div. 939, 179 N. Y. Supp. 924 (1920). See also Capital Trust Co. v. Schenectady, 103 Misc. 56, 231 N. Y. Supp. 119 (1928).

the impracticability of taking up the old pipes. The court held the city liable saying: [40]

> "The city cannot escape liability by voluntarily avoiding such expense and then practically making a more economical test [of turning on the higher pressure] at plaintiff's cost."

On the other hand Pennsylvania sustained a nonsuit in an action against the City of Philadelphia when a temporary repair in the high pressure fire lines burst.[41] In this situation it may be important that the plaintiff was a large corporation and that the break occurred when the pressure was considerably increased during a serious fire. Moreover this line was used only for fire protection and non-liability might have been predicated upon the theory that the maintenance of the high pressure line was a governmental function.

A few cases have been discovered in which the rule of *res ipsa loquitur* has been applied to leaking water pipes and in the case of bursting pipes its application appears to be quite general.[42]

The problem of the liability of a waterworks company for leakage following frost has been familiar to students of torts through the case of *Blythe v. Birmingham Waterworks Co.*[43] An extraordinary frost forced the plug out of the defendant's pipes causing the water to escape and run into the plaintiff's cellar. Judgment was given for defendant. Alderson, B., after stating in effect that the whole thing was an accident caused by frost which was unforeseen and that the cause was not discovered until long after, though the defendants looked for it, held that this could not be called negligence. He gives us his definition of neg-

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[40] Haas v. City of New York, *supra* note 39, at 429, 176 N. Y. Supp. at 434.

[41] Ritz-Carlton Co. v. Philadelphia, 282 Pa. 301, 127 Atl. 843 (1925).

[42] Esberg-Gunst Cigar Co. v. Portland, 34 Ore. 282, 55 Pac. 961 (1899), 43 L. R. A. 435 (1899).

There are a few cases in which it has been held that the mere fact that a water main burst is in itself evidence of want of care by the city or corporation to whom it belongs. Rainier Heat & Power Co. v. City of Seattle, 193 Pac. 233, 113 Wash. 95 (1920); Hub Clothing Co. v. City of Seattle, 117 Wash. 251, 201 Pac. 6 (1921).

[43] 11 Exch. 781 (1856).

ligence and his reasons why the present facts do not come within it in the following words: [44]

> "Negligence is the omission to do something which a reasonable man, guided upon those considerations which ordinarily regulate the conduct of human affairs, would do, or doing something which a prudent and reasonable man would not do. . . . A reasonable man would act with reference to the average circumstances of the temperature in ordinary years. The defendants had provided against such frosts as experience would have led men, acting prudently, to provide against; and they are not guilty of negligence, because their precautions proved insufficient against the effects of the extreme severity of the frost of 1855. . . ."

Only a few years later there seems to have been another "extraordinary" frost in England which started a water plug and resulted in flooding a cellar. This same situation which had been litigated in Birmingham came before the courts again in *Steggles v. New River Company* [45] upon very similar facts—(the defendant claimed they were precisely similar). This time the court of Queen's Bench held that there was evidence of negligence to take the case to the jury in that no precautions were taken against even ordinary frost and hence the rule to set aside the verdict for the plaintiff was discharged.

The plaintiff argues that granting the precedent of *Blythe v. Birmingham Waterworks Co.* he should be able to recover here. He points out that in the *Birmingham* case all possible precautions were taken and here no precautions have been taken. So far as the reports of these cases indicate, the conditions as to precautions were the same. In the *Birmingham* case, apparently no special precautions had been taken against frost, because frost had never produced this injury before, hence when looked at *ex post facto* (as the law always does in passing on the existence of negligence) there was no negligence. But five years later, Christmas, 1860, another extraordinary frost produces the same kind of damage. This time the situation looked at *ex post facto* again makes a

[44] *Ibid.* at 784.
[45] 11 W. R. 234 (1862).

different impression. At least it looks so different that the English judges are willing to let a jury take the case and find for the plaintiff.

What is happening to the law of England on the subject of liability of water companies? Or perhaps we should ask, what is happening to the point of view of English judges? The first time an "extraordinary" frost starts a water plug in the north of England there is no negligence, but when the same thing happens five years later, the judge appears to recognize the existence of *some* duty to take precautions against frost. The court indicates that it is not very clear just what precautions are indicated but after all, the court has come to believe that something should be done to prevent recurrences of this sort of thing. It is left to the water companies to work out the engineering but unless something is done, the water companies will be held liable for the consequences *even* if the frost is "extraordinary". Yet in the brief opinion in this case the fact that the frost is extraordinary is not even referred to. In short, the court has in effect notified the water companies that this flooding of peoples' premises through the bursting out of water plugs whenever there is a very hard frost has got to stop, or the water companies must bear the loss. Here is, it seems to me, some indication that the loss should be cast upon the enterprise rather than the individual.

The Hazard of Impure Water

Water companies have been subjected to many suits for damages due to users of their product contracting typhoid fever.[46] They are usually held liable in such cases where they knew or should have known that the water was contaminated in such a way as to render it undesirable for drinking even though they may not have known that the polluting material included the bacilli of typhoid.[47]

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[46] See collected cases 5 A. L. R. 1402 (1920).

[47] Stein v. State, 37 Ala. 123 (1861); Pennsylvania Ry. Co. v. Lincoln Trust Co., 167 N. E. 721 (Ind. 1929); Stubbs v. Rochester, 226 N. Y. 516, 124 N. E. 137 (1919); Buckingham v. Plymouth Water Co., 142 Pa. 221, 21 Atl. 824 (1891).

The formula by which liability is imposed appears in much the same terms in current cases that it did in earlier ones, but there is evidence, it seems to the writer, that its application calls for entirely different conduct upon the part of a water company today than it did a generation ago if that company is to avoid liability for an epidemic of typhoid fever among its patrons.

Sixty years ago there was nothing in the law about impure water as a cause of typhoid fever. Thirty years ago we began to have cases which discussed the responsibility of a water company with reference to the existence of cases of typhoid fever upon the watershed from which its reservoir was supplied. Now we find references to open "by-pass" valves between the public domestic supply system and private systems belonging to corporations, and to the failure of chlorination of water turned into the mains even for a few hours.

A recent California case recognizes the adequate functioning of the chlorination treatment of a public water supply as an element in the standard of due care to be observed. In *Ritterbusch v. Pittsburgh* [48] it appeared that for a period of some twelve hours unchlorinated water was let into the mains and three weeks later an epidemic of typhoid and dysentery appeared in the town. Plaintiff's decedent was a victim of this epidemic. It was held that these circumstances were sufficient to take to the jury the question of the legal responsibility of the city as operator of the waterworks. The case involved nineteen suits against the city to be decided upon the law as determined in the one appeal.

Where recovery is sought for illness due to impure water, the problem of causal relation is one which is very frequently discussed. If *A*, living in a community supplied by the *X* water company, is taken ill with typhoid fever, does it follow that he was infected by drinking the water, even though it does appear that the water supply was polluted? It is known that typhoid may be communicated in a number of different ways. It is also thoroughly well recognized by bacteriologists that the *bacillus typhosus* can seldom be demonstrated in a water supply even when

[48] 205 Cal. 84, 269 Pac. 930 (1928).

it is heavily polluted. Medically, other evidence is accepted as circumstantially sufficient to condemn a water supply as a potential source of typhoid. Shall the law accept such circumstantial evidence? The answer is that if the gap between cause and effect is to be bridged, it must accept such evidence, and it does. This was clearly recognized in *Jones v. Mt. Holly Water Company* in 1915 [49] and has been repeated in most of the cases since which have involved the point. It is well put in a very recent New York case, *Wiesner v. City of Albany*: [50]

> "Of course, owing to the fact that many people are immune and the typhoid germs are microscopic in size, the method of infection cannot be determined by direct proof but evidence of the source of infection must be circumstantial. To insist that the plaintiff must establish that the infection came from the city water by positive proof would be to require an impossibility. It is sufficient if it is shown by the best evidence available that the bacilli were introduced into his system by means of the city water, so that the jury may by reasonable inference reach a conclusion to that effect. This is not speculation, but a process of logical deduction."

There are suggestions that liability for supplying impure water deleterious to health should be predicated upon implied warranty as well as upon negligence.

In *Canavan v. Mechanicville* [51] the New York Court of Appeals held that the furnishing of water is a sale of goods under the personal property law but that there is no implied warranty that it is free from deleterious matter. The court, therefore, sustained a demurrer to the plaintiff's warranty count. Judges Pound, Elkus, and Hogan dissented. However, the plaintiff's negligence count was sustained. The opinion in this case appears to show the operation of the economic factor in the judicial process when it states,[52]

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[49] 87 N. J. L. 106, 93 Atl. 860 (1915).

[50] 238 App. Div. 239, 242, 229 N. Y. Supp. 622, 625 (1928).

[51] 229 N. Y. 473, 128 N. E. 882 (1920), accord *dictum* in Aronson v. City of Everett, 136 Wash. 312, 239 Pac. 1011 (1925) to the effect that the liability of city for supplying impure water is based on negligence, not implied warranty.

[52] Canavan v. Mechanicville, *supra* note 51, at 481, 128 N. E. at 884.

> "Men will not form corporations which the court will hold obligated, at a risk which may bankrupt and destroy them, to enter into a guaranty or warranty which they cannot fulfill."

The majority opinion in this case, in holding that water supplied through pipes did not come within the statutory provision covering sales of food at retail, that there is an implied warranty of fitness for consumption, relied on a statutory provision providing that there is no such warranty except where the buyer expressly or by implication makes known to the seller the particular purpose for which the goods are required.

The dissent pointed out that the defendant managed and controlled the water supply and had full opportunity to ascertain its freedom from injurious matter. Elkus, J., said: [53]

> "The public welfare demands that a municipality supplying such an important element in the life of the people as water should be held to a strict liability if they fail to fulfil their full duty in this regard. . . . The warranty as to the purity of the water supplied to the inhabitants of a city should be implied. . . . The defendant, the municipality, had every means of ascertaining whether the water which it supplied was fit for the purpose it impliedly warranted it to be, viz., to drink. . . . A competent analysis would have disclosed impurities in any appreciable quantity and suitable precautions could have been taken."

Later in this opinion, answering the economic argument of the majority, Elkus says: [54]

> "The taxpayers like the stockholders of a corporation may be injured by the installation of incompetents in office, but this should not affect the course of justice in rendering relief to those injured. . . . The remedy of the taxpayer is the removal of the incompetent official. Human life and health are of the greatest importance because the greatest asset which the state has is the lives of its people and *any rule of law which tends to enhance and improve the general health and life of the people of the state should be upheld.*" [55]

[53] *Ibid.* at 488, 128 N. E. at 887.
[54] *Ibid.* at 489, 128 N. E. at 887.
[55] Italics the author's.

The dissent in this case also seems to the writer to take account (although perhaps unconsciously) of the capacity to bear loss. It states, for example,[56]

> "When a municipal corporation fails to fulfil the duty placed upon it, and the warranty it makes when it undertakes to supply its inhabitants with the water necessary to human life and by reason thereof certain individuals suffer damage, then the municipality must indemnify such individuals."

Inasmuch as the majority opinion deals chiefly with the question of whether the warranty count was demurrable and sustained the negligence count, its chief interest lies in the revelation of the efforts of the dissenting judges, who evidently felt that recovery should in justice be allowed, to work out a solution through the formula of warranty in order that the risk might be shifted upon the party whom these judges thought should bear it, in case he should be unable to prove his negligence count.

Contributory Negligence in Using Contaminated Water

If the water supply of a city is contaminated with sewage and there are present in the city many cases of typhoid and this condition has existed for some time and is well known to every one in town, will a person who drinks the water and contracts typhoid be precluded from recovery under the doctrine of contributory negligence? In a Wisconsin case [57] involving the fact situation just suggested, it was held that plaintiff's decedent had been guilty of contributory negligence in continuing to drink water from the defendant's mains in view of the evidence that he knew of its dangerous qualities. It seems impossible to suggest a basis of making effective the duty which the law purports to impose upon water companies, in the face of the doctrine of contributory negligence. Here is an instance in which strict adherence to the concept of contributory negligence will seriously hamper the law in evolving a program of tort responsibility consistent

[56] Canavan v. Mechanicville, *supra* note 51, at 488, 128 N. E. at 887.
[57] Green v. Ashland Water Co., 101 Wis. 258, 77 N. W. 722 (1898).

with modern standards of social justice. Is relief possible without legislation, will the courts be able in such cases as this to rationalize a new code of responsibility adequate to modern conditions in the presence of so firmly intrenched a defensive mechanism as that of contributory negligence and assumption of risk?

Property Damage

There are a few cases involving property damages because of the impurity of a water supply. If the water is such as is fit for ordinary domestic use it may nevertheless be unsuitable for use in certain kinds of industrial processes. There is at least evident a tendency to hold that if the water is to be used for a purpose which does not require properties substantially different from those which permits its ordinary domestic use without harm or serious inconvenience the company will be liable for injuries resulting from its commercial use if these ordinary standards have not been maintained. In a recent Georgia case [58] the water supplier was held liable to a bottler of beverages for not giving notice that it was using chloride of lime in treating the water, in view of the company's knowledge that it was to be used in preparing a beverage which would be rendered so unpalatable as to be unsalable by the presence of this chemical, but where "the water being furnished is reasonably satisfactory for all purposes except the 'peculiar and uncommon uses to which it is put in the conduct of the plaintiff's business' " and there is no other source of supply which is reasonably available there is no error in holding the defendant not liable.[59]

Failure of Water Supplies

There remains at least one other type of case which should be mentioned, *viz.*, the problem of the liability of water companies for physical injuries to property by reason of the *failure* of water supply. In a recent Indiana case [60] the owner of a green house

[58] Griffin v. Griffin Chero-Cola Co., 35 Ga. App. 779, 134 S. E. 812 (1926).

[59] Oakes Mfg. Co. v. City of New York, 206 N. Y. 221, 230, 99 N. E. 540, 542 (1912).

[60] City of Huntingburg v. Morgen, 162 N. E. 255 (Ind. 1928).

sued the city in its proprietary capacity as operator of a water supply for injury to his plants due to failure of water pressure. The Indiana Supreme Court allowed recovery although liability for *fire* damage due to failure of water supply is not imposed in that jurisdiction.[61] The Court gives as the reason for distinction that fire protection is a governmental function whether the city itself owns the water supply or contracts for it with a private owner, but says the court,[62]

> "In supplying water to the inhabitants of the city for daily consumption the well-established rule is that the city is liable on the same principle that a private corporation engaged in the same business is liable."

This generalization by which the court distinguishes the present case from one of fire protection is well recognized. It no doubt rests in part upon an unwillingness to make the city or water company an insurer against fire loss. The risk bearing factor is very likely present in this type of situation. Inasmuch as most property is insured, to allow recovery here would simply give the insurance companies a right of subrogation and transfer the ultimate loss—not from an individual to a group—but from one group to another. The feeling towards insurance companies shared by both courts and juries is a guarantee against too many judgments exonerating them from loss bearing. It is doubtful whether the distinction can be supported on the usual formulas of causation.

Among the vast number of negligence cases litigated, those having to do with water companies is relatively small and inasmuch as the police power of the state has been exercised through

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[61] Jennie De Pauw Memorial Church v. New Albany Water Works, 193 Ind. 368, 140 N. E. 540 (1923). This represents the great weight of authority. For an exceptionally good discussion see opinion by Judge Cardozo in Moch. Co. v. Rensellaer Water Co., 247 N. Y. 160, 159 N. E. 896 (1928). *Contra:* Harlan Water Co. v. Carter, 220 Ky. 493, 295 S. E. 428 (1927). There are a number of earlier cases. Florida: Mugge v. Tampa Waterworks, 52 Fla. 371, 42 So. 81 (1906); see Note (1907) 7 COL. L. REV. 71. N. Carolina: Fisher v. Greensboro Water Supply Co., 128 N. C. 375, 38 S. E. 912 (1901); *cf.* Guardian Trust Co. v. Fisher, 200 U. S. 57, 26 Sup. Ct. 186 (1906); Highway Trailer Co. v. Janesville Elec. Co. v. Morgan, 187 Wis. 161, 204 N. W. 773 (1925); see Note (1924) 3 WIS. L. REV. 369.

[62] City of Huntingburg v. Morgen, *supra* note 60, at 257.

legislation giving the control of potable water supplies into the hands of boards of health with extensive powers, and since these boards have accomplished so much through administrative procedures outside the courts the instances of injury to health and life because of improper water supplies are few. The health departments take better care of the individual in the way of giving him safe water than he would take of himself and leave him but little occasion to complain of the purity of the water which he enjoys in such abundance.

The injuries which are occasioned by leakage of water are mostly injuries to property and have apparently been disposed of with a sufficient degree of satisfaction by the application of well established formulas of negligence when the leak is really a big thing doing very large damage and perhaps hazarding life and limb. It may perhaps be inferred from such cases as the one in Minnesota already referred to that the courts feel that social policy calls for something more severe and far-reaching as the test of a water company's responsibility. The courts herein show that the law reacts to differences of degree just as do individuals and to repeat Mr. Justice Holmes' oft quoted expression:[63] "I am the last person in the world to quarrel with a distinction simply because it is one of degree. Most distinctions, in my opinion, are of that sort, and are none the worse for it."

Conclusion

The conclusion which must be drawn from these cases has been stated in summarizing the discussion of the gas cases. For the most part the familiar doctrines and formulas of negligence are employed in solving these cases. It does appear, however, that a higher standard of care is gradually being evolved in reference to the operation of great utility undertakings. This takes the form of finding negligence in the failure to use protective processes and appliances as science makes them available. The consequence is that loss does tend to be passed from the individual

[63] Dissenting opinion in Haddock v. Haddock, 201 U. S. 562, 631, 26 Sup. Ct. 525, 553 (1905).

to the group-supported enterprise. The evidence that a desire to accomplish this end is the reason for imposing increasingly strict standards of care is chiefly circumstantial but is occasionally made express as in the words of the Minnesota court already quoted,[64] "Natural justice would seem to demand that the enterprise, . . . the whole community benefited by the enterprise, should stand the loss rather than the individual."

[64] *Supra* note 36.